



State of Utah

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

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June 24, 1988

TO: Sue Linner, Permit Supervisor

FROM: Lynn Kunzler, Reclamation Biologist *LK*

RE: Vegetation Sampling of the Slope Areas at the Genwal Coal Company, Crandall Canyon Mine, ACT/015/032, Folder #2, Emery County, Utah

On May 20, 1988, Reclamation Biologists, Lynn Kunzler and Brent Stettler, of the Division conducted vegetation sampling at the above referenced site. Of concern is the commitment in the mine plan that should vegetation and litter cover be less than 80% Genwal Coal Company will implement an irrigation program in order to increase the vegetation cover.

A ten-pin frame was utilized to estimate percent cover on these slopes, with the frame being systematically placed over the entire revegetated site and each 5 frames being considered one sample. Analysis of the data shows cover (litter and vegetation) to be 53.8% (10 samples met statistical adequacy at the 80% confidence level). It will therefore be necessary to implement the irrigation plan.

In addition to the cover sampling, observations were made with regards to species composition and potential problem areas. on the western tier area, the site is dominated by cheatgrass (a weed), orchard grass and crested wheatgrass (introduced species that were not in the approved seed mix for this area). The weed problem is mostly confined to the eastern 1/3 of the area and should be controlled (either chemical or mechanical) next spring before the seed head develops. The treated area would then need to be reseeded in the fall with the approved mix. Orchard grass and crested wheatgrass can be very aggressive (competitive) and could reduce both cover and species diversity which may affect bond release criteria. should this be the case, a violation would be warranted (for using species not approved for reclamation and that do not meet the criteria of UMC 817.112). The areas dominated by these two species should also be included in the weed control treatment.

LK/as

cc: James Leatherwood
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